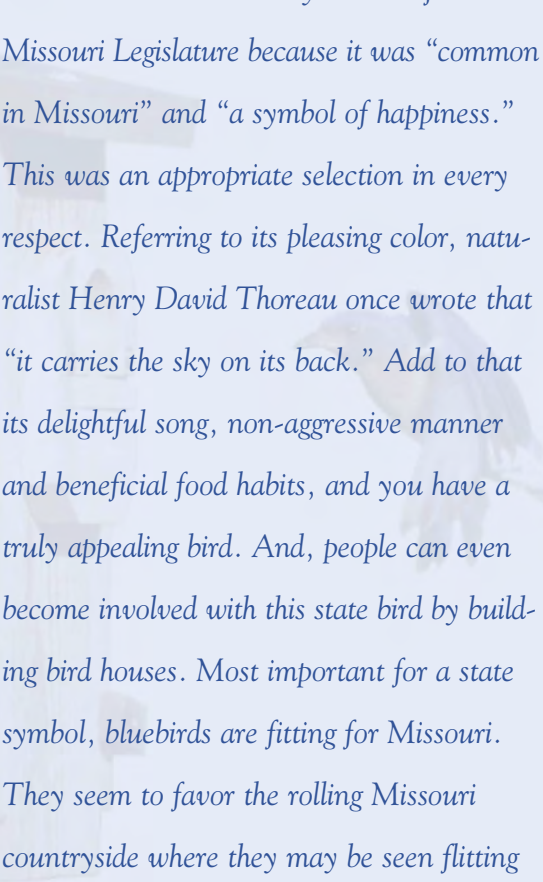


Bluebirds

in Missouri





*O*n March 30, 1927, the eastern bluebird was officially designated the Missouri state bird by an act of the Missouri Legislature because it was “common in Missouri” and “a symbol of happiness.” This was an appropriate selection in every respect. Referring to its pleasing color, naturalist Henry David Thoreau once wrote that “it carries the sky on its back.” Add to that its delightful song, non-aggressive manner and beneficial food habits, and you have a truly appealing bird. And, people can even become involved with this state bird by building bird houses. Most important for a state symbol, bluebirds are fitting for Missouri. They seem to favor the rolling Missouri countryside where they may be seen flitting about from fencepost to fencepost on any bright spring morning. For those who witness the flash of blue and hear their “cheer-cheery-up” song in such a setting, the phrase “bluebird of happiness” takes on a special meaning.

IDENTIFICATION



Male

Strikingly blue on the back, wings and tail; rusty breast, white belly.



Female

Blue-gray on back, wings and tail; otherwise similar to male.



Young Bluebird

White flecks on blue upper parts; dark speckles on white breast. Young males more brilliantly blue than young females.

Eastern Bluebird Facts:

Scientific name: *Sialia sialis*

Size: 6 to 7 inches long

Food: Insects in summer, mainly fruits in winter

Habitat: Open grasslands with scattered trees

Nesting Season: March to August

Number of broods: 1 to 2, rarely 3

Time required to build nest: 4 to 7 days

Nest: A cup of fine grasses, about 4 inches in diameter

Eggs: 3 to 6, $\frac{3}{4}$ " x $\frac{1}{2}$ ", clear blue (5 percent are white)

Incubation period: 13 to 14 days

Fly from the nest: 15 to 18 days after hatching

Predators and competitors: house sparrows, starlings, house wrens, black rat snakes, raccoons, cats

HABITAT

In summer, bluebirds frequent rural grasslands where there are scattered trees for perching and nesting. They also live where there are large lawns, such as at cemeteries, golf courses and parks.



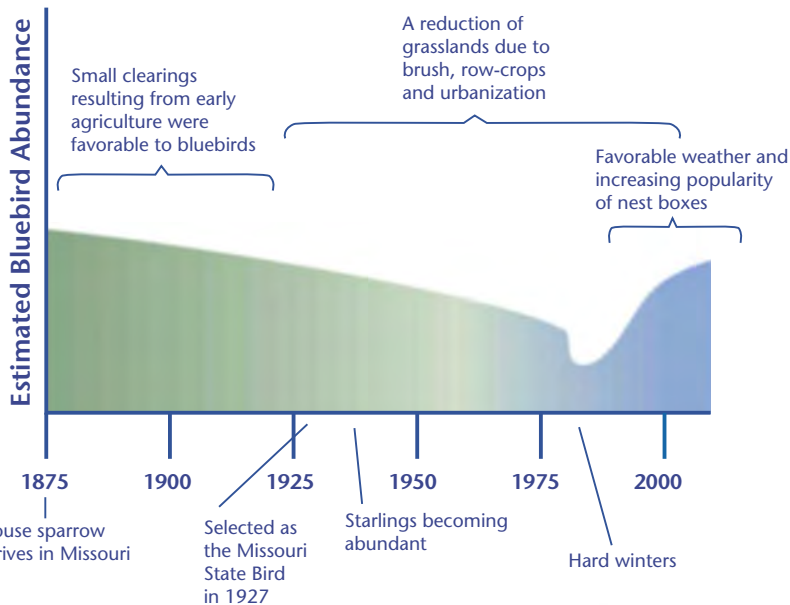
Historically, they were associated with savannas, which are open woodlands with an understory of grasses and wildflowers. A necessary component of bluebird nesting habitat is an appropriately sized nesting cavity. Before settlement, these were woodpecker holes or decayed branches. Today, bluebirds also readily nest in manmade nest boxes.



FOODS

Bluebirds are voracious predators of grasshoppers and crickets, which they locate from a perch and pounce on, pinning them to the ground with their bills.

They also eat beetles, bugs, caterpillars, spiders and flying insects, the latter often captured during short flights. Those that winter in Missouri move to where food is available, consuming foods such as rose hips and cedar, poison ivy and sumac berries. They also find dormant insects and, on warm winter days and along shorelines, even active insects.



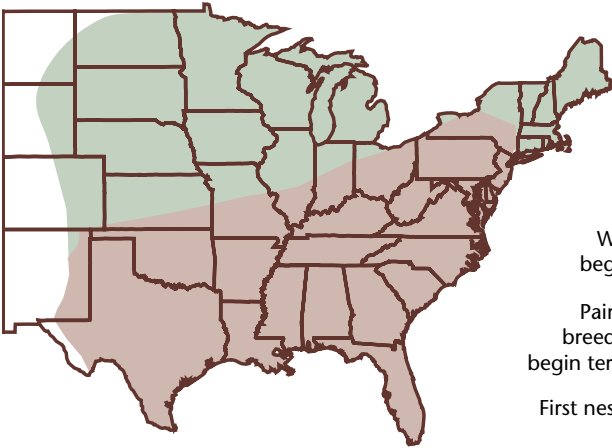
Population Trends



The number of bluebirds in Missouri has varied over time in response to many factors. The Breeding Bird Survey indicates high numbers in recent years. People who believe bluebirds are becoming rare may have moved from the country to the city during their lives or witnessed their local habitat become brushy. Still, bluebirds are not without problems. The removal of dead trees and branches for firewood or neatness continues to eliminate existing or potential nest cavities. If it were not for the many Missourians who maintain nesting boxes, bluebirds would probably be far worse off.



Charles Schwartz illustration

RANGE



-  Nesting
-  Year-round

Wintering flocks
begin to break up

Pairs arrive on the
breeding territories;
begin territorial singing

First nests constructed

First eggs laid

First brood fledges

Second nesting initiated

Second brood fledges

Rarely, third
nesting initiated

Third brood fledges

Bluebirds in
northern Missouri
begin migration

Family groupings
gradually join larger
wandering flocks
from mid-September
through December

Jan

Feb

March

April

May

June

July

Aug

Sept

Oct

Nov

Dec

THE ANNUAL CYCLE

Bluebirds arrive at nesting sites in February and March. The male selects a nest site and offers the female food. The female accepts the site by bringing nest material. She builds the nest. Second and even third nestings can occur through the summer until as late as August. Nest failure and re-nesting can alter the latter part of this schedule.

NESTING BEHAVIOR

Eggs are laid one per day over the number of days necessary to produce the clutch. Incubation, done entirely by the female, begins with the last egg laid so that all hatch on the same day and the young fledge synchronously.

Both parents feed the young but the female alone broods them. New nestlings are fed small, soft insects, such as caterpillars. As nestlings grow, the parents bring them larger insects and spiders and feed them more frequently—as often as every five minutes by the end of the nesting period. Droppings are produced in a fecal sac and carried well away by parents to thwart predator detection of the nest site.

When 15 to 18 days of age, the stubby-tailed, speckled young exit the cavity and fly to a nearby perch. They stay close together at night. The parents stop feeding them at seven to 10 days after fledging.



NEST BOXES



*B*luebirds readily accept appropriately placed manmade nest boxes, perhaps because of a shortage of natural nesting cavities. Nest boxes have the added advantage of excluding starlings if the entrance is 1½" in diameter. Boxes can increase the local bluebird population and offer many hours of enjoyment.

When to place nest boxes

Place new boxes and clean out and refurbish existing boxes by **March 1**.

Where to place nest boxes

Place boxes in open, grassy areas with perching sites. Meadows, pastures, savannas, cemeteries or yards that are not too heavily shaded are ideal. It is best if the grass is short. Fence lines, power lines, scattered trees or nearby woods provide good perches. Boxes placed in forests, inner cities, shaded yards, cultivated fields or areas with only tall grass will probably be unsuccessful.

How to situate nest boxes

For best results, mount the box on a lone post. Posts can be fitted with a 24" long metal sleeve to discourage climbing predators. Posts in fence rows can become overgrown with brush, enabling black rat snakes and mice to enter the box. Tree trunks are often too shaded or easily climbed by squirrels and snakes.

Height: 4 to 5 feet. Bluebirds nest at almost any height, but this height is convenient for checking.

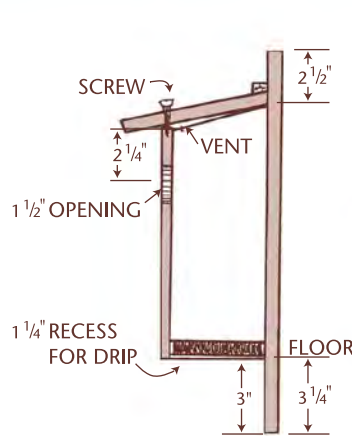
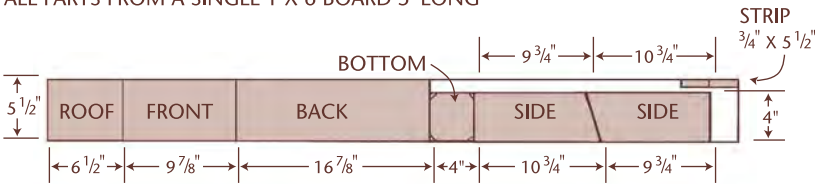
Space: 300 feet apart. This accommodates the bluebird's sizeable territory. Boxes

placed closer might be used at the same time if not in line of sight.

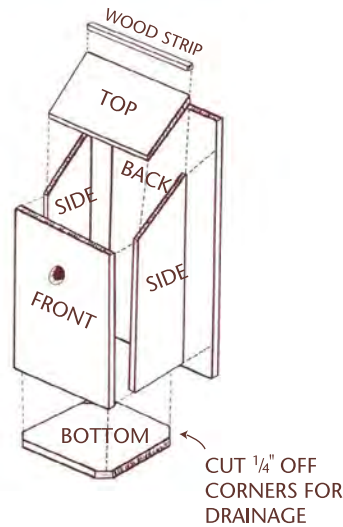
House Design

The top may be mounted on a hinge, or a $\frac{1}{2}$ " dowel may be substituted for the hold-down strip for the roof. Either bevel the corners on the bottom or drill four $\frac{1}{4}$ " holes for drainage. Pine or other easily worked wood is recommended. Painting is not necessary. If painted, use light grey or tan paint.

ALL PARTS FROM A SINGLE 1 X 6 BOARD 5' LONG



SECTION VIEW
(side)



Monitoring

Once a bluebird pair initiates nesting, you can open the box and check the eggs or young until they reach 13 days of age. After that, leave the young alone so that they are not frightened and do not leave the nest too early.

Maintenance

Clean out old nest material as soon as the young have fledged. This will help keep future nests well below the entrance hole and safer from predators. Discard the nest material at a distance so that it is not reused—handy nest material may encourage sparrows to nest in the box.

Establish a Bluebird Trail

A bluebird trail is a series of boxes spaced along a route where they can be periodically monitored and maintained.

Check the houses every week to 10 days for the following problems:

House sparrows: Not only are house sparrows more aggressive than bluebirds when competing for nest boxes, they will occasionally kill the young bluebirds by pecking their heads. House sparrows are not protected by state or federal law, and they should be continually discouraged by removing nests and eggs as soon as they appear. Their easily recognized nests are messy structures of grasses, feathers and assorted litter. The eggs are white and speckled with brown. If house sparrow problems continue, move boxes to at least ¼ mile away from any buildings.

Starlings: A 1½" entrance hole will exclude starlings. Woodpeckers or squirrels, however, will sometimes enlarge holes,

If you are building nest boxes, please make certain that they will be looked after once in place. Boxes that are not looked after may instead benefit bluebird competitors such as house sparrows and starlings. There is evidence that neglected boxes may do more harm to bluebirds than if there were no boxes at all.

enabling starlings to enter. If this happens, nail a board with the proper-sized hole over the front of the box. Starlings are not protected by law.

Wrens: Punctured eggs or a box filled with sticks and thorns are evidence of the house wren. Sometimes wrens even kill young and adult bluebirds by pecking their heads. Competition from wrens probably indicates that the box is too near brushy cover. House wrens are protected by law.

Other Bird Competitors:

Boxes used by chickadees, tufted titmice, nuthatches or flying squirrels are probably in areas that are too wooded for bluebirds. Go ahead and allow these native species to use the box.

Blow flies: Both fly eggs and larvae will sometimes become established in a bluebird nest. The larvae will suck blood from young bluebirds. If this occurs, lift up the nest with your fingers and gently tap it. The larvae will fall out of the nest and can be removed from the bottom of the box.



House sparrow



Starling



House wren



FEEDING BLUEBIRDS

*B*luebirds do not eat seeds, so rarely visit ordinary bird feeders. To see bluebirds up close, attract them with special foods. Some Missourians make cakes of yellow corn meal glued together with cooled bacon drippings or similar cooking grease with bits of fruit or

raisins throughout. Berries collected in summer can be dried or frozen and provided during cold weather. If the reason for feeding is to promote bluebird survival, it is better to plant dogwoods, sumacs, cedars, hawthorns or similar plants that provide natural winter foods.

Several days of sub-freezing cold and snow or ice cover can cause mass mortality among bluebirds. It took nearly a decade for Missouri's population to recover from the hard winters of the late 1970s.

WINTER ROOST BOXES

Some bluebird enthusiasts have advocated winter roost boxes to protect bluebirds on cold winter nights. Missouri Department of Conservation research has revealed that standard nest boxes provide the best shelter of any manmade

structures. Occasionally, people find dead bluebirds in boxes; the birds may have been unable to forage because of snow or ice cover and would have starved regardless. Of course, natural cavities provide the best protection.

OTHER BLUE SONGBIRDS

The eastern bluebird has two relatives that live in western North America, the western bluebird (*Sialia mexicana*) and the mountain bluebird (*Sialia currucoides*). The latter, an all-blue species, very rarely wanders into Missouri. The most likely solid blue birds to be seen in Missouri are the male indigo bunting, a small, deep-blue bird, and its larger, look-alike cousin, the blue grosbeak.



Indigo Bunting, male

For More Information:

The Bluebird Book: The Complete Guide To Attracting Bluebirds by Donald and Lillian Stokes. 1991. Little, Brown and Co. Paperback. 96pp.

North American Bluebird Society, PO Box 7844, Bloomington, IN 47407.

E-mail: hotline@society.org Published *Bluebird*, a quarterly journal.

Bluebird Nest Box Monitoring Form

Box No.	Date(s) of Egg Laying	Total Eggs	Total Hatched	Total that Fly	Comments (Predation, etc.)

If you are interested in tracking the success of your bluebird boxes, you may wish to use this form.





Bluebirds, such as this female, often perch in the open so that they can spy insect prey in the grass below them.

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